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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicants: A.N. Schwartz et al.

Attorney Docket No. SWTZ110464

Serial No: 08/794,154

Group Art Unit: 3408

Filed: February 8, 1997

Examiner: P. Nerbun

Title: GOGGLES WITH PLIABLE AND RESILIENT SEALING PAD

APPELLANTS' APPEAL BRIEF

Seattle, Washington

August 25, 1997

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

This is an appeal from a final rejection by Examiner P. Nerbun of Group Art Unit 3408 dated March 26, 1997. Applicants filed a timely Notice of Appeal on June 24, 1997.

The jurisdiction of this Board is invoked under the provisions of 35 U.S.C. § 134. and 37 C.F.R. § 1.91-192.

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1 I. REAL PARTY IN INTEREST

2 The real parties in interest in the above-identified application are Alan N. Schwartz and  
3 Thomas D. Theisen, which are the owners of all right, title, and interest in the invention.

4 II. RELATED APPEALS AND INTERFERENCES

5 There are no related appeals or interferences related to this application.

6 III. STATUS OF THE CLAIMS

7 Claims 1, 2, 13, 14, 37, 38, 40, 41, 48-50, and 58-65 are pending in this application. This  
8 application is a file wrapper continuation of Serial No. 08/377,257 filed on January 23, 1995  
9 (hereinafter the "Parent Application"). Claims 31-36 of the Parent Application were cancelled  
10 without prejudice in response to a restriction requirement from the Examiner. Claims 3-12, 15-30,  
11 39, 42-47, and 51-57 were cancelled in a preliminary amendment filed with the present application.

12 Claims 1, 2, 37, 38, 40, 41, 50, and 58-65 stand rejected under 35 U.S.C. § 103 as defining  
13 subject matter that is obvious to a person of ordinary skill in the art. Claims 13, 14, 48, and 49 stand  
14 objected to as being dependent upon a rejected base claim but allowable if rewritten in independent  
15 form, including all limitations of the base claim and any intervening claims. All pending claims  
16 (Claims 1, 2, 13, 14, 37, 38, 40, 41, 48-50 and 58-65) are the subject of this appeal.

17 IV. STATUS OF AMENDMENTS

18 All amendments have been entered in the present case.

19 V. SUMMARY OF THE INVENTION

20 The present invention relates goggles, such as swimming goggles, for isolation of the user's  
21 eyes from the outside environment. In order to isolate the user's eyes from the outside environment,  
22 particularly from liquids, it is usually necessary to form an airtight or watertight seal between the  
23 frame of the goggles and the user's eyes. Traditional goggles formed this seal by pressing the rigid  
24 goggle frame against the user's face. This was uncomfortable to many users and did not form a  
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1 working airtight seal for many users due to the extreme variability of the specific shape of the human  
2 face. To overcome these problems, prior art goggles included a flexible pad or flange between the  
3 user's face and the frame. However, such prior art pads or flanges continued to be uncomfortable  
4 and continued to leak for a large number of users. The same was true when a foam pad was used  
5 between the frame and the user's face.

6 Today, the vast majority of goggles use either a flexible flange or a foam pad between the  
7 frame and the user's face. Applicants' invention primarily relates to the new and novel use of a  
8 compliant and resiliently conformable gelatinous elastomer sealing pad between the frame and the  
9 user's face to form an airtight seal to the user's face under just slight to moderate pressure.

10 The sealing pad of the present invention more readily conforms to the numerous variations in  
11 human facial bone structure when in use and returns to its original shape after use. The material of  
12 the pad will, for example, conform to the facial bone structure and form an airtight or watertight seal  
13 with less pressure or compressive force than is required for solid or semisolid frame without such a  
14 pad.

15 The material of the pad will also conform to the facial bone structure by distributing the  
16 compressive force throughout a larger portion of the pad. As a result, facial prominence will not  
17 become pressure points since the pressure is more evenly distributed within the transition pad itself.  
18 This has a potential to reduce irritation and discomfort of goggles to individuals with sensitive skin.  
19 It also reduces the discomfort to an individual who has areas of bone prominence in or near the eye  
20 socket.

21 Because the pad is soft and compliant, it can also more accurately contour and conform to the  
22 facial structures and has the advantage of creating a more effective watertight seal than a solid  
23 elastomer or foam. The goggles also can, because of the improved seal, better protect the eyes from  
24 dangerous environmental exposures, toxins, chemicals, gases, or contaminated blood. Because the  
25 pad is soft and compliant, it can also expand and contract and be designed to absorb shock more

1 effectively, thus protecting the eye and the eye socket from direct compressive blow, such as might  
2 occur with sporting injuries.

3 Because of the pad, the outer frame can be created in many shapes. It can be designed in  
4 forms that conform to the eye socket, or it can extend outside of the eye socket. The advantage of  
5 creating a frame that is not restricted to the eye socket is that the skin is thicker and less delicate over  
6 the cheek and eyebrow than it is immediately over and around the eye, resulting in greater comfort  
7 and less damage to the delicate skin of the eye. Because of the pad, the goggles require less  
8 compressive force, and the compressive force need not be applied perpendicular to the frame. Thus,  
9 a non-rigid frame can be used.

10 Because the pad does not rely upon air holes for its malleability and contouring as is  
11 necessary with foam pads, the pad can be made and formed to be resistant to bacterial or fungal  
12 growth. A membrane that is biocompatible with the skin and which is bacterial and fungal resistant  
13 can also be placed around the transition pad. This can provide an added safety element to the pad.

14 The goggles can be constructed such that the components can be interchangeable and  
15 replaceable; that is, the frame, the eyepiece, the pads, and the straps could all be replaceable if  
16 damaged. This allows the user and manufacturer to produce components to the goggles that can be  
17 repaired, replaced, changed for design purposes, all at a cost less than replacing the entire goggle.

## 18 VI. ISSUES PRESENTED FOR REVIEW

19 The first issue presented for review is whether Claims 1, 2, 37, 38, 40, 41, 50, 58-60, 64, and  
20 65 are unpatentable under 35 U.S.C. § 103 over Runckel, U.S. Patent No. 5,331,691 in view of  
21 Chen, U.S. Patent No. 5,334,646.

22 The second issue presented for review is whether Claims 61-63 are unpatentable under  
23 35 U.S.C. § 103 over Nishiyama, U.S. Patent No. 5,093,940 in view of Chen, U.S. Patent  
24 No. 5,334,646.

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VII. GROUPING OF CLAIMS

With respect to the first issue, the patentability of Claims 1, 2, 37, 40, 50, and 59 is to be determined separately. Claims 38, 41, 58, 60, 64, and 65 stand or fall within Claim 1. Claim 40 stands or falls within Claim 2.

With respect to the second issue, the patentability of Claims 61-63 is to be determined separately.

VIII. ARGUMENT

A. Rejections Under 35 U.S.C. § 103

1. Summary of Prior Art Cited

U.S. Patent No. 5,331,691 (Runckel) discloses an eyepiece component (12) secured over the user's eyes. The eyepiece (12) has rims (40, 44) which conform to the user's supra-orbital bone (36) and infra-orbital ridge (38), respectively. A "conformable pad" (42) is affixed to the rim (40, 44) and engages the user's infra-orbital bones. The only description of this "conformable pad" is found in column 3, lines 45-59 which reads, in relevant part, as follows:

A conformable pad 42 is affixed to the rim 40. The thickness of the pad is between approximately 2.0 to 6.0 millimeters, preferably 4.0 millimeters. The pad 42 engages the skin 43 which covers the forward roof portion of the orbit . . . Although the exact orientation of the supraorbital bone may vary slightly between different people, the conformable pad 42 compensates for small variations between the slope of the bone 36 relative to the slope of the rim 40.

There is no further discussion or explanation of the "conformable pad" (42) in the Runckel patent.

U.S. Patent No. 5,093,940 (Nishiyama) discloses separate lens units (10) covering each of the user's eyes and held in place by a mask frame (20). The lens units (10) are easily moveable within the mask frame (20). An ocular pad (41) made of spongy synthetic resin foam or an ocular seal (42) made of a silicone rubber flange is used to seal the individual lens units to the user's skin.

It appears from the figures in the Nishiyama patent that the lens units (10) are designed to fit within the orbits of the user's eye. Compare, for example, Figure 2 of Nishiyama with Figure 4 of

1 Runckel, which is clearly an intraorbital device. Likewise, Nishiyama expressly teaches that both  
2 the lens unit (10) and the mask frame (20) are generally made of hard, strong materials. See  
3 column 4, lines 7-22. Finally, the transparent portion of the lens unit is not described anywhere as a  
4 "thin transparent sheet," but it is instead described as a "spectacle lens" (11) that can consist of a  
5 single lens or a combination of convex and concave lenses to facilitate focusing. See column 4,  
6 lines 16-18.

7 Since the principal focus of Nishiyama is the adjustability of the lens units (10) within the  
8 mask frame (20), there is very little discussion of the foam ocular pad (41) or ocular seal flange (42).  
9 The only substantive discussion on these items is located in column 2, line 67 to column 3, line 11  
10 and reads as follows:

11 On the backside of the lens unit (10), an ocular mechanism is attached. Its suitable  
12 components are the ring-shaped ocular pad (41) made of a spongy synthetic resin  
13 such as urethane or neoprene rubber or the ocular seal (42) made of transparent  
14 silicone rubber. The ocular pad is bonded on the backside surface (15) of the collar  
15 portion (13). The ocular seal (42) is attached to cover circumference of the collar  
16 portion (13). Although both of the ocular mechanisms can be watertight, the ocular  
17 seal (42) is best suited for swimming goggles. For the ocular seal (42), it is  
18 possible to furnish the lip (43), which is fixed on tubular portion (12) by means of  
19 the edge (24) of the lens opening (21).

20 Since this disclosure teaches that an ocular seal flange (42) is preferable to a sealing pad (41), it  
21 actually teaches away from the use of any sealing pad between the lens unit and the user's skin.

22 U.S. Patent No. 5,234,646 (Chen) discloses various gelatinous elastomeric compositions and  
23 literally dozens of potential applications of the disclosed elastomeric gels. The vast majority of the  
24 disclosure in the Chen patent are directed to the composition, manufacturing processes, and physical  
25 properties of the particular gelatinous compositions claimed in the patent, and are therefore largely  
irrelevant to the issues in this appeal.

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1 In addition to such technical information, Chen also discloses numerous potential  
2 applications and uses of the gelatinous elastomers disclosed in the specification. Specifically, Chen  
3 lists a large multitude of potential applications beginning on column 6, line 23 through column 7,  
4 line 59 of the specification and in Examples XV-XIV (column 11, line 65 to column 12, line 68).

5 The vast majority of the potential uses disclosed in Chen involve the use of the disclosed  
6 gelatinous elastomers as a vibration dampener or a shock absorber. For example, virtually all of the  
7 uses described in conjunction with the human body relate to shock absorption. In particular,  
8 column 6, lines 48-58 provide as follows:

9 The compositions are also useful as molded shape articles for use in medical and  
10 sport health care, such use include therapeutic hand exercising grips, dental floss,  
11 crutch cushions, cervical pillows, bed wedge pillows, leg rest, neck cushion,  
12 mattress, bed pads, elbow padding, dermal pads, wheelchair cushions, helmet liner,  
13 cold and hot packs, exercise weight belts, traction pads and belts, cushions for  
splints, slings, and braces (for the hand, wrist, finger, forearm, knee, leg, clavicle,  
shoulder, foot, ankle, neck, back, rib, etc.), and also soles for orthopedic shoes.

14 Likewise, column 6, line 67 through column 7, line 17 provides as follows:

15 As an example of the versatility of use of the instant composition, a hand exerciser can be  
16 made in any shape so long as it is suitable for use as a hand exerciser: a sphere shape, a cube shape,  
17 a rectangular shape, etc. Likewise, a wheelchair cushion can be made from the composition in any  
18 shape, so long as it meets the needs of the user of the cushion. For example, a cushion can be made  
19 by forming the composition into a selected shape matching the contours of the specific body part or  
20 body region. The composition can be formed into any desired shaped, size and thickness suitable as  
21 a cushion; the shaped composition can be additionally surrounded with film, fabric, foam, or any  
22 other desired material or combinations thereof. Moreover, the composition can be casted onto such  
23 materials, provided such materials substantially maintain their integrity (shape, appearance, texture,  
24 etc.) during the casting process. The same applies for brace cushions for the hand, wrist, finger,  
25 forearm, knee, leg, etc.



1 There is no suggestion in Chen of using gelatinous elastomers to form any type of seal with human  
2 skin.<sup>1</sup>

3 The Chen patent also discloses that the gelatinous elastomer may be used for "optical uses  
4 (e.g., cladding for cushioning optical fibers from bending stresses) and various optical devices." See  
5 column 6, lines 59-61. Examples XXVII and XXVIII demonstrate the type of "optical uses"  
6 disclosed by Chen. Example XVII describes the process for casting Chen's gelatinous elastomers  
7 into a lens forming mold and using the resultant lenses to image newsprint and other objects. See  
8 column 12, lines 15-24. Example XVIII describes using the extruded gelatinous material as a wave  
9 guide for laser light. See column 12, lines 25-34.

10 Chen lists numerous other potential practical applications and uses for his gelatinous  
11 elastomers. None of the other uses are relevant to the present appeal. Except as discussed above,  
12 none of these other potential applications or uses in any way (a) teaches or suggests using gelatinous  
13 elastomers described in Chen as a seal of any nature, (b) teaches or suggests use in connection with a  
14 human being, or (c) teaches or suggests use in any optical device. Clearly Chen never discloses the  
15 use of his materials for an ocular seal in connection with a human being.

16 2. Issue No. 1: The Combination of Runckel and Chen

17 Claim 1 recites goggles for isolation of the user's eyes that include a frame with a transparent  
18 portion covering at least one of the user's eyes and a sealing pad consisting of a compliant and  
19 resiliently deformable gelatinous elastomer that forms a substantially airtight seal between the frame  
20 and the user's face. The Examiner rejected this claim as being obvious under 35 U.S.C. § 103 by  
21 substituting a sealing pad made of Chen's gelatinous elastomer for the "conformable pad" of  
22 Runckel.

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25 <sup>1</sup> The only suggested use of Chen's elastomer as a seal is to use the material with inanimate objects such as "a  
high vacuum seal (against atmosphere pressure) which contains useful amount of mineral oil-based magnetic fluid  
particles, etc." See, column 6, lines 62-64.

1           The principal issue in this appeal can be simply stated as follows: Would the teaching in  
2       Chen suggest, to a person skilled in the art, the use of Chen's gelatinous elastomer as a replacement  
3       for the conformable pad described in Runckel under 35 U.S.C. § 103? Applicants respectfully  
4       submit that there is not sufficient disclosure to teach or suggest such substitution to a person skilled  
5       in the art.

6           The law is well settled that obviousness cannot be established by combining the teachings of  
7       prior art to produce the claimed invention, absence some teaching, suggestion, or incentive  
8       supporting the combination. *See, In re Geiger*, 815 F.2d 686, 688, 2 U.S.P.Q.2d 1276, 1278  
9       (Fed. Cir. 1987); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577,  
10      221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). A § 103 rejection presumes the existence of differences  
11      between the subject matter claimed and the teaching of the prior art. Office Action remarks rejecting  
12      applicants' claims under § 103 must therefore point to something specific in the prior art that  
13      suggests in some way a modification of a particular reference or a combination with another  
14      reference in order to arrive at the claimed invention. Absent such a showing in the prior art, the  
15      rejection in permissible use is applicants' teaching to hunt through the prior art for the recited  
16      elements in the claims and combine them in the claimed manner. *See, In re Vaeck*, 947 F.2d 488,  
17      20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir.  
18      1990); *In re Laskowski*, 871 F.2d 115, 117, 10 U.S.P.Q.2d 1397, 1398 (Fed. Cir. 1989).

19          The March 26, 1997 Office Action supports its combination of Runckel and Chen based upon  
20      the inclusion of the phrase "various optical devices" in Chen's listing of potential applications. See  
21      column 6, lines 59-61 of Chen. Specifically, the Examiner states his entire argument in favor of such  
22      combination as follows:

23           To construct the goggles of Runckel with the sealing pad being formed from a  
24           gelatinous elastomer as suggested by Chen . . . would have been obvious since Chen  
25           states that gelatinous elastomers may be used in the construction of optical devices.

1 March 26, 1997 Office Action at page 3. This is obviously a very thin reed upon which to base a  
2 rejection under 35 U.S.C. § 103 and in fact cannot support such rejection.

3 First, Chen nowhere suggests that his material can be used as a "sealing pad." To the  
4 contrary, the clear thrust of Chen's disclosure is that his material can be used as a vibration  
5 dampening, shock absorbing and cushioning material. The only usage by Chen as a seal is between  
6 inanimate objects as a "high vacuum seal (against atmospheric pressure) which contains a useful  
7 amount of a mineral oil-based magnetic fluid particles, etc." Such use is radically different from use  
8 as a seal with human skin, and certainly does not suggest the latter use. This is confirmed by the fact  
9 that although the Chen patent lists a numerous and wide variety in conjunction with the human body,  
10 none of these uses even vaguely hint at the use as a sealing pad.<sup>2</sup>

11 The Examiner, in his attempt to justify the combination of Chen with the various goggle prior  
12 art, has grossly overextended the definition of the word "optical." Reasonably read, the isolated use  
13 of this word "optical" in the Chen patent would not suggest to a person skilled in the art the use of  
14 Chen's elastomer in combination with any of the prior art goggles. In particular, the word "optical"  
15 itself is defined as follows:

- 16 1. Of or pertaining to sight: *an optical illusion*. 2. Designed to assist sight:  
17 *optical instruments*. 3. Of or pertaining to optics. 4. Pertaining to or using light:  
18 *optical astronomy*. 5. Using light sensitive devices: *optical character recognition*.

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23 <sup>2</sup> Such uses suggested by Chen include therapeutic hand exercising grips, dental floss, crutch cushions, cervical  
24 pillows, bed wedge pillows, leg rests, neck cushions, mattresses, bed pads, elbow padding, dermal pads, wheelchair  
25 cushions, helmet liner, cold and hot packs, exercise weight belts, traction pads and belts, cushions for splints, slings and  
braces (for hand, wrist, finger, forearm, knee, leg, clavicle, shoulder, foot, ankle, neck, back, rib, etc.), and also soles for  
orthopedic shoes. See column 6, lines 48-58. It is readily apparent that all these uses relate to the cushioning property  
of Chen's elastomer, not any sealing property.

1 American Heritage Dictionary (2d Ed. 1985) at page 873. It is interesting to contrast the use of the  
2 phrase "optical devices" in the Chen patent with the "ocular pad" and "ocular seal" of the Nishiyama  
3 goggle patent. "Ocular" is defined as follows:

- 4 1.A. Of or pertaining to the eye: *ocular exercises*. B. Resembling the eye in form  
5 or function. 2. Of or pertaining to the sense of sight: *an ocular aberration*.  
6 3. Seen by the eye; visual: *ocular proof*--*n.* the eye piece of an optical instrument.  
[*Id.* at page 861.]

7 The definition of "optical" involves "sight-related" or "light-related" concepts rather than  
8 "eye-related" concepts. The claimed sealing pad has nothing to do with sight or light transmission.  
9 The goggles of the present invention are designed primarily to isolate the user's eyes from the  
10 outside environment. The fact that a portion of the goggles are transparent is not related to the  
11 principal function of goggles. The incidental use of the phrase "optical devices" in Chen no more  
12 suggests combination with goggle prior art than the use of the phrase "audio devices" would suggest  
13 combination with earmuff prior art.

14 The disclosure in the Chen patent strongly confirms that the phrase "optical device" refers to  
15 light-related devices, not eye-related devices. Example XVII from Chen (column 12, lines 15-24)  
16 describes pouring a particular gelatinous elastomeric composition into various optical lens molds,  
17 allowing the composition to cool and harden, and using the resultant lenses to image newsprint and  
18 other objects. This use relates to the light transmission properties of the composition. The use of the  
19 word "image" instead of "view" or "read" further indicates that the "optical" use referred to relates to  
20 use in a machine rather than in conjunction with a human user. Likewise Example XVIII  
21 (column 12, lines 25-34) describes the continuous extrusion of one of Chen's compositions through  
22 various diameter dyes. When the extruded articles are allowed to cool, Chen describes the  
23 transmission of light with a particular wavelength from a particular laser through one meter lengths  
24 of such extrusions. Again, this "optical" use is light-related not eye-related. Finally, Chen describes  
25 the use of his compositions "for use in shock and dielectric encapsulation of optical, electrical, and

1 electronic components" and as "vibration isolators for an optical table." It would be silly to suggest  
2 that such uses relate to shock and dielectric encapsulation of "eye-related" components or as an  
3 "eye-related" table. The clear teaching of Chen is that the phrase "various optical devices" refers to  
4 light-related devices, not eye-related devices.

5 Chen does not teach or suggest the use of his elastomers in any eye-related application or as a  
6 sealing pad with human skin. Chen discloses literally dozens of uses of his composition as cushions  
7 and other forms of shock absorbing pads in conjunction with human beings. The fact that Chen does  
8 not even suggest the use of his material to form a seal with human skin amongst a myriad of other  
9 uses expressly taught by the patent actually teaches against the use of Chen's material as a seal with  
10 human skin. Likewise, the fact that Chen does not even suggest a single "eye-related" use would  
11 similarly teach against the combination suggested by the Examiner. A reasonable person skilled in  
12 the art would certainly look at the myriad of disclosed human uses, including items as esoteric as  
13 dental floss, and conclude that Chen would have disclosed the use of his composition as an  
14 eye-related seal if this was an appropriate use, especially since Chen discloses the use of his material  
15 in numerous human applications and as a seal in high-vacuum applications.

16 The alleged unique properties of the gelatinous elastomer taught by Chen are set forth in  
17 lines 23-36 in column 6 of that patent. These properties focus on the deformability and shock  
18 absorption properties of the material described in Chen. There is no indication in any of the various  
19 properties listed that the gelatinous elastomer of Chen should act as a good sealing material or even  
20 suggesting its use as a sealing pad to the human skin.

21 Claim 2 is dependent on Claim 1 and further specifies a particular range of compliancy or  
22 softness for the gelatinous elastomer used as a sealing pad. The Examiner rejected this claim under  
23 35 U.S.C. § 103 for the following reason:

24 It would have been obvious to one having ordinary skill in the art at the time the  
25 invention was made to select a gelatinous polymer having a degree of compliancy

1 within the range recited since it has been held that where the general conditions of a  
2 claim are disclosed in prior art, discovering the optimum or workable ranges  
involve only routine skill in the art. *In re Aller*, 105 U.S.P.Q. 233.

3 March 26, 1997 Office Action at page 3.

4 The Examiner's rejection is inappropriate for two reasons. First, the Examiner grossly  
5 misstated the holding of *In re Aller*, 105 U.S.P.Q. 233 (1955). This case held that:

6 where the general conditions of a claim are disclosed in the prior art, it is not  
7 inventive to discover the optimum or workable ranges by routine experimentation.

8 *Id* at 235. Therefore, *In re Aller* does not hold that "discovering the optimum or workable ranges  
9 involves only routine skill in the art" as suggested by the Examiner, but instead suggests that  
10 discovering optimum or workable ranges is not patentable if it involves only routine  
11 experimentation. The Examiner has not asserted that only routine experimentation is required to  
12 establish ranges set forth in Claim 2 or that the determination of such ranges was within the  
13 capabilities of one skilled in the art. *Id*.

14 The Examiner's argument also fails due to the failure of the antecedent that "the general  
15 conditions have a claim are disclosed in the prior art." None of the cited art discloses the general  
16 conditions that must be met by the sealing pad. Chen does not disclose a sealing pad of any form.  
17 Runckel simply states that the sealing pad must be conformable. Even Nishiyama simply discloses  
18 that the sealing pad must be watertight but actually teaches away from the sealing pad in favor of a  
19 deformable flange. The Examiner's rejection of Claim 2 cannot be sustained based on the record  
20 presently before the Board.

21 Claim 37 recites (a) a frame including a transparent portion covering the user's eyes, (b) a  
22 sealing pad made of gelatinous elastomer which forms a substantially airtight seal between the frame  
23 and the user's face, (c) specifies that the gelatinous elastomer is "a synthetic polymer gel of the type  
24 used in the Kitecko Ultrasound Standoff Pad manufactured by 3M Corporation of St. Paul,  
25 Minnesota," (d) specifies the compliancy of the gelatinous elastomer, and (e) specifies that the

1 sealing pad is enclosed in "a thin, distortable toroidal membrane having a smooth and regular  
2 surface." Items (a) and (b) above are the only elements recited in Claim 1, and therefore if Claim 1  
3 is allowable, Claim 37 is allowable. Likewise, items (a), (b) and (d) above are identical to the only  
4 elements in Claim 2 of the patent, and therefore Claim 37 is allowable if Claim 2 is allowable. In  
5 addition, applicants respectfully submit that Claim 37 is allowable for reason of the additional  
6 limitation (e) described above.

7 As the Examiner correctly points out, Chen states that the gelatinous elastomer "can be  
8 additionally surrounded with film . . ." However, Chen also points out that the use of a film  
9 surrounding the elastomer relates the use of the elastomer as a cushion. In particular, column 7,  
10 lines 8-12 provide as follows:

11 the composition can be formed into any desired shape, size and thickness suitable as  
12 a cushion; the shaped composition can be additionally surrounded with film, fabric,  
13 foam or any other desired material or any other combinations thereof (emphasis  
added).

14 There is no suggestion in Chen of the use of a film to surround a "sealing pad" as opposed to a  
15 "cushion."

16 Claim 38 is dependent upon Claim 1 and additionally specifies that the gelatinous elastomer  
17 is a synthetic polymer gel. This claim stands or falls on Claim 1.

18 Claim 40 is dependent on Claim 1, and further specifies a range compliancy of the gelatinous  
19 elastomer. This claim stands or falls on Claim 2.

20 Claim 41 is dependent on Claim 1, and further specifies that the sealing pad is tacky. This  
21 claim stands or falls on Claim 1.

22 Claim 50 is dependent upon Claim 1, and further specifies that the gelatinous elastomer is  
23 covered by a thin distortable membrane of the type discussed with respect to Claim 37. This claim  
24 stands or falls on the arguments asserted with respect to Claim 1 and the additional argument  
25 asserted with respect to Claim 37.

1        Claim 58 is dependent upon Claim 1, and further specifies that the sealing pad is permanently  
2 attached to the frame. This claim stands or falls on Claim 1.

3        Claim 59 is dependent upon Claim 1, and further specifies a means for removable attachment  
4 of the sealing pad to the frame. None of the prior art relied upon in the March 26, 1997 Office  
5 Action discloses, teaches, or suggests this feature, nor is there any contention by the Examiner that  
6 such removable sealing pad would be obvious to a person skilled in the art.

7        Claim 60 is dependent upon Claim 1, and further specifies that the sealing pad is designed to  
8 conform to the orbits of the user's eyes. This claim stands or falls on Claim 1.

9        Claim 64 is dependent upon Claim 1, and further specifies that the gelatinous elastomer is a  
10 silicon gel. This claim stands or falls on Claim 1.

11       Claim 65 is dependent upon Claim 1, and further specifies that the gelatinous elastomer is a  
12 European gel. This claim stands or falls on Claim 1.

13       3.        Issue No. 2: The Combination of Nishiyama and Chen

14       The March 26, 1997 Office Action rejects Claims 61-63 as being unpatentable under  
15 35 U.S.C. § 103 over Nishiyama in light of Chen.<sup>3</sup> The Examiner's basis for combining Nishiyama  
16 and Chen is identical to his basis for combining Runckel and Chen and therefore fails for the same  
17 reason. In addition, Claims 61-63 are also allowable for the following additional reasons:

18       Claim 61 is dependent upon Claim 1, and further specifies that the frame is sized to fit  
19 outside the orbits of the user's eyes. Neither Nishiyama nor Chen (nor for that matter Runckel)  
20 disclose a frame sized to fit outside the orbits of the user's eyes. Although Nishiyama does not  
21 expressly state whether the goggles fit inside or outside the orbits of the user's eyes, a person skilled  
22 in the art, comparing FIGURE 2 of Nishiyama with FIGURE 4 of Runckel and recognizing that  
23

24       <sup>3</sup> To the extent that the Office Action is interpreted as rejecting Claims 2, 37, and 40 based upon the  
25 combination of Nishiyama and Chen, the arguments set forth for these claims with respect to the combination of  
Runckel and Chen are equally applicable to the combination of Nishiyama and Chen.



1 Runckel expressly discloses goggles that fit inside the orbits of the user's eyes, would certainly  
2 conclude that the goggles of Nishiyama likewise fit inside the orbits of the user's eyes. Applicants  
3 are unaware of anything in Nishiyama that would teach otherwise and certainly nothing that would  
4 teach or suggest that the goggles be designed to fit outside the orbits of the user's eyes.

5 Claim 62 is dependent on Claim 1, and further specifies that the frame is flexible and  
6 conforms generally to the shape of the user's face. Neither Nishiyama nor Chen discloses a flexible  
7 frame. To the contrary, Nishiyama appears to disclose a relatively rigid lens unit (10) and mask  
8 frame (20). In particular, this patent provides as follows:

9 Both the lens unit (10) and the mask frame (20) can be manufactured by method for  
10 forming synthetic resin. The lens unit (11) is combined with the tubular  
11 portion (12), suitable materials are cellulose acetate (CA), cellulose propionate  
12 (CP.), cellulose acetate butylate (CAB) and others including PS, PMMA, PET,  
13 polyamide resin, acrylic acid resin. A choice of selection is left to determine  
14 whether the color of those materials is chromatized or colored transparent. The  
15 spectacle lens (11) can be formed by a combination of concave and convex lenses to  
16 facilitate focusing. Furthermore, the mask frame (20) can be constructed in various  
17 colors and shapes. The suitable materials for the mask frame are a strong resin,  
18 synthetic or natural rubber including fiber reinforced rubber and metals.

19 Column 4, lines 7-23. There is no support for the Examiner's rejection of Claim 62 based upon a  
20 combination of Nishiyama and Chen.

21 Claim 63 is dependent upon Claim 62, and further specifies that the frame consists of a thin  
22 sheet of transparent material. Neither Chen nor Nishiyama discloses a frame that consists of a thin  
23 sheet of transparent material. To the contrary, the only portion of the Nishiyama device that is even  
24 inferentially transparent is the lens unit (10) or more particularly the spectacle lens (11). However,  
25 the lens unit (10) is obviously not a thin sheet of transparent material; and the spectacle lens (11) is  
described as comprising one or more lenses (see column 4, lines 16-18), obviously contrary to  
teaching or suggesting the use of a thin sheet of material.

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1 B. Objections to Claims 13, 14, 48, and 49

2 These claims have been objected to by the Examiner as being dependent upon invalid claims.  
3 To the extent the underlying claims are held valid, the Examiner's objections should be overturned.

4 IX. CONCLUSION

5 For the foregoing reasons, Applicants submit that the rejection of and objection to  
6 Applicants' claims is in error and that all claims in this application clearly define novel and  
7 nonobvious subject matter in view of the cited and applied prior art.

8 Respectfully submitted,

9 CHRISTENSEN O'CONNOR  
10 JOHNSON & KINDNESS<sup>PLLC</sup>

11 

12 Thomas D. Theisen  
13 Registration No. 35,713

14 Attorneys for Appellant

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